

Bar Chart of Programming Language Popularity

Aim

Create a bar chart displaying the popularity of programming languages using Python and Matplotlib.

Algorithm

1. Import required libraries (matplotlib.pyplot)
2. Define data for programming languages and their popularity
3. Create a figure and axis object
4. Create a bar plot using plt.bar()
5. Set the title of the chart
6. Set labels for x and y axes
7. Customize the chart (colors, width, etc.)
8. Add text labels on top of each bar
9. Display the plot

Code

```
import matplotlib.pyplot as plt

languages = ['Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++']
popularity = [22.2, 17.6, 8.8, 8, 7.7, 6.7]

fig, ax = plt.subplots(figsize=(10, 6))

bars = ax.bar(languages, popularity, color='skyblue', width=0.6)

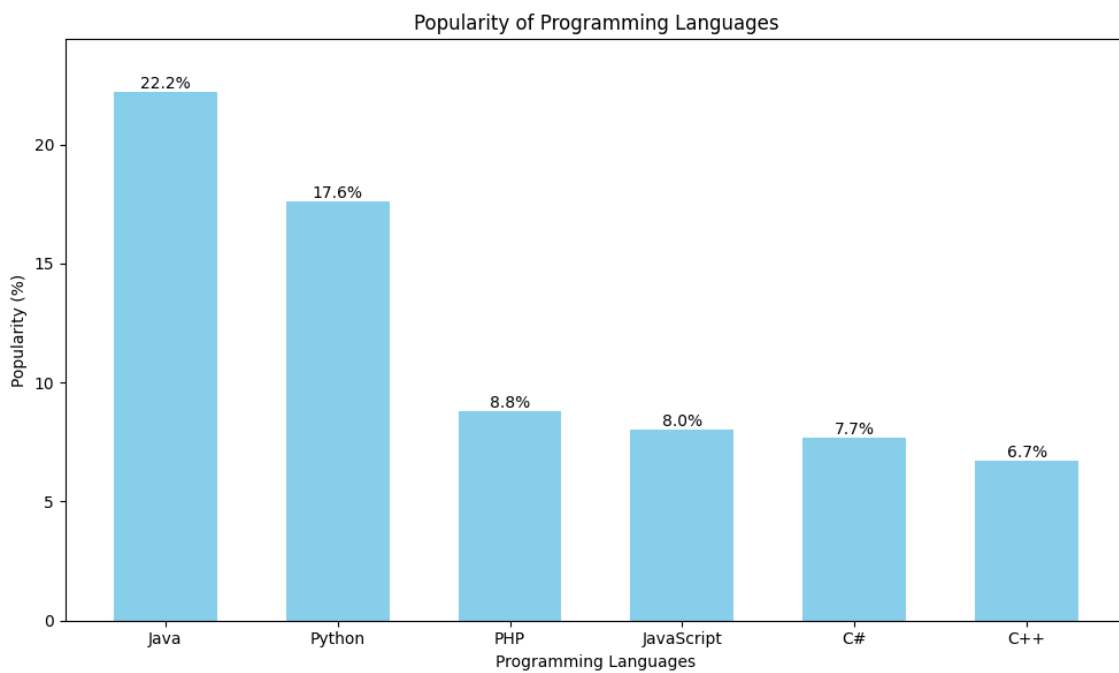
ax.set_title('Popularity of Programming Languages')
ax.set_xlabel('Programming Languages')
ax.set_ylabel('Popularity (%)')

ax.set_ylim(0, max(popularity) * 1.1)

for bar in bars:
    height = bar.get_height()
    ax.text(bar.get_x() + bar.get_width()/2, height,
            f'{height}%', ha='center', va='bottom')

plt.tight_layout()
plt.show()
```

Output



Result

The bar chart successfully displays the popularity of six programming languages. Java is shown as the most popular language with 22.2% popularity, followed by Python at 17.6%. The chart provides a clear visual representation of the relative popularity of each language, with the exact percentage labeled on top of each bar for precise information.